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DHEC Health Update

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Update on Current Influenza Activity, South Carolina

Current South Carolina Influenza Activity, as of January 31, 2009

As of January 31, 2009 South Carolina's state influenza activity status is "Regional"**. During the week ending January 31, the state Influenza-Like Illness (ILI) percentage increased as did the number of positive rapid tests. This is consistent with data from US virologic surveillance systems and national emergency department chief-complaint surveillance systems. In addition data provided regarding the sales of antivirals show a significant upward trend in the two weeks prior to January 31, 2009.

The South Carolina Laboratory Viral Isolate Network has processed a total of 138 viral isolate specimens this season. Twenty positive viral isolates have been reported thus far. There have been eight (8) influenza A H1, three (3) influenza A H3, one (1) influenza A unsubtyped, and eight (8) influenza B reported.

<u>Influenza-Like Illness (ILI) network</u> activity is below baseline in the upstate and above baseline in the midlands and coastal regions of the state. The state ILI percentage is above baseline (2.77%).

<u>Positive rapid antigen tests</u> reports have increased over the last two weeks. During the week ending January 24, 2009, 121 positive rapid antigen tests were reported. The week ending January 31, 2009, 374 positive rapid antigen tests were reported.

Footnote: **Influenza activity ranges from "no activity" to "widespread" activity.

Vaccine Composition Match Information

The influenza virus strains present in the current 2008-2009 trivalent vaccine are: A/Brisbane/59/2007 (H1N1)-like, A/Brisbane/10/2007 (H3N2)-like, and B/Florida/4/2006-like antigens.

According to CDC's most recent report for week ending January 31:

- The CDC has antigenically characterized 229 influenza viruses [142 influenza A (H1), 35 influenza A (H3) and 52 influenza B viruses] collected by U.S. laboratories since October 1, 2008.
 - All 142 influenza A (H1) viruses are related to the influenza A (H1N1) component of the 2008-09 influenza vaccine (A/Brisbane/59/2007).
 - All 35 influenza A (H3N2) viruses are related to the A (H3N2) vaccine component (A/Brisbane/10/2007).

- Seventeen influenza B viruses tested belong to the B/Yamagata lineage and are related to the vaccine strain (B/Florida/04/2006).
- The remaining 35 viruses belong to the B/Victoria lineage and are not related to the vaccine strain.

Clinical Recommendations for Treatment of Influenza

Interim recommendations for the selection of antiviral treatment using laboratory test results and viral surveillance data, United States, 2008-09 season‡

Rapid antigen or other laboratory test	Predominant virus(es) in community	Preferred medication(s)	Alternative (combination antiviral treatment)
Not done or negative, but clinical suspicion for influenza	H1N1 or unknown	Zanamivir	Oseltamivir + Rimantadine*
Not done or negative, but clinical suspicion for influenza	H3N2 or B	Oseltamivir OR Zanamivir	None
Positive A	H1N1 or unknown	Zanamivir	Oseltamivir + Rimantadine*
Positive A	H3N2 or B	Oseltamivir OR Zanamivir	None
Positive B	Any	Oseltamivir OR Zanamivir	None
Positive A+B**	H1N1 or unknown	Zanamivir	Oseltamivir + Rimantadine*
Positive A+B**	H3N2 or B	Oseltamivir OR Zanamivir	None

Footnotes:

*Amantadine may be substituted for rimantadine but has increased risk of adverse events. Human data are lacking to support the benefits of combination antiviral treatment of influenza; however, these interim recommendations are intended to assist clinicians treating patients who might be infected with oseltamivir-resistant influenza A (H1N1) virus.

‡ Influenza antiviral medications used for treatment are most beneficial when initiated within the first two days of illness. Clinicians should consult the package insert of each antiviral medication for specific dosing information, approved indications and ages, contraindications/warnings/precautions, and adverse effects.

Laboratory Testing for Influenza

Rapid Antigen Testing and Surveillance

 Commercial rapid diagnostic test kits most commonly use a nasopharyngeal (NP) swab specimen. Results are completed in office in approximately 30 minutes and

^{**}Positive A+B indicates a rapid antigen test that cannot distinguish between influenza and influenza B viruses

- indicate the presence of influenza virus. They may also provide serological typing of A, B or A and B, depending on the brand of rapid antigen testing kit used.
- Positive results from rapid tests are reportable in South Carolina, as part of our influenza surveillance system.

Influenza cultures and their use in surveillance

- Influenza strain typing is used to determine what is circulating within a community, and is an important component in overall influenza surveillance.
- As always, DHEC will continue to provide influenza culture media to Sentinel Provider practices to detect influenza strains circulating in the community.
- During clusters/outbreaks or upon request to document outbreaks in institutional settings, DHEC may recommend additional cultures to be collected in order to categorize the influenza.
- Positive culture results from all laboratories/healthcare practices are reportable to DHEC.

Serological Influenza testing is not recommended for surveillance purposes

- DHEC discourages serological influenza testing for antibodies. To indicate a likely recent influenza infection serological testing requires both an acute and convalescent specimen, demonstrating a four-fold increase in antibody titer.
- The protracted time delay of this serological testing method does not allow for timeliness in laboratory results, clinical management and public health surveillance.

Resource Links

DHEC Health Update on Seasonal Influenza Surveillance

www.scdhec.gov/health/disease/han/docs/DHU-flu-2.pdf

CDC Health Advisory on Interim Recommendations for use of Influenza Antiviral Medication in the setting of Oseltamivir Resistance

www.scdhec.gov/health/disease/han/docs/CHA-Rec-1.pdf

DHEC Influenza Surveillance Website

www.scdhec.gov/health/disease/acute/flu.htm

CDC Influenza Website

www.cdc.gov/flu

CDC Respiratory Hygiene/Cough Etiquette in Healthcare Settings

• www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm

CDC Guideline for Isolation Precautions in Hospitals

www.cdc.gov/ncidod/dhqp/pdf/guidelines/isolation2007.pdf

DHEC Contact Information for Reportable Diseases and Reporting Requirements

Reporting of outbreaks/clusters of influenza, along with positive rapid flu tests, positive viral culture results and influenza deaths (lab confirmed pediatric and adult) are consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2009 List of Reportable Conditions available at:

http://www.scdhec.gov/health/disease/docs/reportable_conditions.pdf

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

Regional Public Health Offices - 2009

Mail or call reports to the Epidemiology Office in each Public Health Region.

Region I

Anderson, Oconee

220 McGee Road Anderson, SC 29625 Phone: (864) 260-4358 Fax: (864) 260-5623

Nights / Weekends: 1-866-298-4442

Abbeville, Edgefield, Greenwood, Laurens, McCormick, Saluda

1736 S. Main Street Greenwood, SC 29646 Phone: 1-888-218-5475 Fax: (864) 942-3690

Nights / Weekends: 1-800-420-1915

Region 2 Greenville, Pickens

PO Box 2507 200 University Ridge Greenville, SC 29602-2507 Phone: (864) 282-4139 Fax: (864) 282-4373

Nights / Weekends: 1-800-993-1186

Cherokee, Spartanburg, Union

PO Box 4217 151 E. Wood Street Spartanburg, SC 29305-4217 Phone: (864) 596-2227, x- 210 Fax: (864) 596-3443 Nights / Weekends: 1-800-993-1186

Region 3 Chester, Lancaster, York

PO Box 817 1833 Pageland Highway Lancaster, SC 29720 Phone: (803) 286-9948 Fax: (803) 286-5418

Nights / Weekends: 1-866-867-3886

Region 3 (continued)

Fairfield, Lexington, Newberry, Richland

2000 Hampton Street Columbia, SC 29204 Phone: (803) 576-2749 Fax: (803) 576-2993

Nights / Weekends: 1-888-554-9915

Region 4

Clarendon, Kershaw, Lee, Sumter

PO Box 1628 105 North Magnolia Street Sumter, SC 29150 Phone: (803) 773-5511 Fax: (803) 775-9941

Nights/Weekends: 1-877-831-4647

Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion

145 E. Cheves Street Florence, SC 29506 Phone: (843) 661-4830 Fax: (843) 661-4859

Nights / Weekends: (843) 660-8145

Region 5 Bamberg, Calhoun, Orangeburg

PO Box 1126 1550 Carolina Avenue Orangeburg, SC 29116 Phone: (803) 533-7199 Fax: (803) 533-7134

Nights / Weekends: (803) 954-8513

Aiken, Allendale, Barnwell

1680 Richland Avenue, W. Suite 40 Aiken, SC 29801 Phone: (803) 642-1618 Fax: (803) 643-8386

Nights / Weekends: (803) 827-8668 or

1-800-614-1519

Region 6

Georgetown, Horry, Williamsburg

1931 Industrial Park Road Conway, SC 29526-5482 Phone: (843) 915-8804 Fax: (843) 365-0085

Nights / Weekends: (843) 381-6710

Region 7

Berkeley, Charleston, Dorchester

4050 Bridge View Drive, Suite 600 N. Charleston, SC 29405 Phone: (843) 953-0060 Fax: (843) 953-0051

Nights / Weekends: (843) 219-8470

Region 8

Beaufort, Colleton, Hampton, Jasper

219 S. Lemacks Street Walterboro, SC 29488 Phone: (843) 525-7603, x-108 Fax: (843) 549-6845

Nights / Weekends: 1-800-614-4698

<u>DHEC Bureau of Disease Control</u> Division of Acute Disease Epidemiology

1751 Calhoun Street Box 101106 Columbia, SC 29211 Phone: (803) 898-0861 Fax: (803) 898-0897

Nights / Weekends: 1-888-847-0902



www.scdhec.gov

Categories of Health Alert messages:

Health Alert: conveys the highest level of importance: warrants immediate action or attention.

Health Advisory: provides important information for a specific incident or situation; may not require immediate action. **Health Update:** provides updated information regarding an incident or situation; unlikely to require immediate action.